REMARKS/ARGUMENTS

These Remarks are responsive to the Office Action mailed August 25, 2003 ("Office Action"). Applicant respectfully requests reconsideration of the rejections of claims 1-9 for at least the following reasons.

STATUS OF THE CLAIMS

Claims 1-9 are pending in the application.

No new matter is added by this response.

INFORMATION DISCLOSURE STATEMENT

Attached are copies of the non-patent literature document references cited in the Information Disclosure Statement filed June 05, 2003. The attached references were inadvertently omitted and therefore not considered. Applicant respectfully requests that the Examiner consider the attached references and indicate so by initialing Form PTO/SB/08A accordingly.

CLAIM REJECTIONS - 35 U.S.C. § 102

The Office Action has rejected claims 1 and 3-6, under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,516,497, issued to Speronello et al. ("Speronello et al."). Specifically, the Office Action states:

> Speronello et al. discloses a zeolite catalyst having an iron or copper promoter loading which is useful for reducing nitrogen oxides. Speronello et al. provides for introducing ammonia into a gas stream from about 0.7 to 2 moles of ammonia per mole of nitrogen oxides. The reaction is carried out at a temperature of from 200°C to 600°C (col. 3, lines 36-41). The gas is comprised of nitrogen oxides, oxygen, as well as water (col. 12, lines 56-63). Speronello et al. continues to teach wherein the iron beta-zeolite may also comprise a binder (col. 7, lines 60-62). The Si/Al ratio is significantly less than 30 (col. 7, lines 1-3). The catalyst is comprised of 1 wt% of iron (col. 3, lines 49-51).

Applicants respectfully submit that Speronello et al. fails to anticipate claims 1 and 3-6 as Speronello et al. does not disclose all of the limitations and elements as recited in claims 1 and 3-6. In particular, claim 1--upon which claims 3-6 are dependent--recites a "a gas comprising NO_x, N_2O,

oxygen and water." In contrast, Speronello et al. does not disclose or teach a gas comprising N_2O, *inter alia.* Speranello does teach or disclose methods for destroying NO_x (i.e., nitrogen oxides, nitric oxides, NO, and NO_2). However, it is well known in the art that NO_x should not be construed to include N_2O (i.e., nitrous oxide). As such, Speronello et al. fails to teach all the limitations of the present invention as recited in claims 1 and 3-6.

As discussed in the specification, the ability of the present invention to catalytically reduce "the nitrogen oxides ***and, the protoxides such as the acid oxides***, [represents] a highly appreciated technical advancement" (page 2, lines 21-22, emphasis added). Many processes and methods are known in the art for the reduction of NO_x by ammonia with a catalyst. Speronello et al. is included in such processes and methods. However, these types of "selective reduction of NO_x by ammonia [make] no reference to nitrous oxide" (page 2, lines 3-4). But, indeed, "[n]itrogen protoxide or nitrous oxide, of formula N_2O is likewise produced at the time of the oxidation of ammonia by air oxygen at high temperature, and it also is produced during the SCR destruction of nitric oxides" (page 2, lines 5-7).

"For a long time, one hardly worried about eliminating [N_2O] before release to the atmosphere until an awareness developed that [N_2O] was a gas having a strong greenhouse effect" (page 2, lines 7-9). Since this awareness, there has "been sought a unique catalyst which would simultaneously carry out the destruction of NO_x and N_2O by ammonia and, under the same operating conditions, in particular at a temperature less than 400°C, which besides has a hydrothermal stability sufficient at 600°C to resist temperature periods to which it can be subjected under certain circumstances of its use" (page 2, lines 15-19). The present invention solves this problem by identifying a unique catalyst and a process for using same to destroy both NO_x and N_2O.

The present invention is distinguished from prior methods and processes, including that of

Speronello et al., by providing a method wherein "at the same time one could destroy N_2O and NO_x in gases which contain them as well as oxygen by selective catalytic reduction by ammonia over beta zeolite containing iron" (page 3, lines 4-6). By failing to disclose and teach a gas comprising both NO_x and N_2O (*see* claim 1), Speronello et al. fails to teach all the elements and technical advancements of the present invention.

For at least the foregoing reasons, claims 1 and 3-6 distinguish over the teachings and disclosure of Speronello et al.

CLAIM REJECTIONS - 35 U.S.C. § 103

The Office Action states that claims 2 and 7-9 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Speronello et al. in view of U.S. Patent No. 6,221,324, issued to Coq et al. ("Coq et al.").

As discussed above with regard to the rejections under 35 U.S.C. § 102, Speronello et al. does not teach all the elements and limitations of the present invention. In particular, claim 1--upon which claims 2 and 7-9 are dependent--recites "a gas comprising NO_x, N_2O, oxygen and water . . . ." However, Speronello et al. do not teach or disclose such a gas. Rather, Speronello et al. simply teach catalysts and a catalytic reduction of NO_x with ammonia. As recited in claim 1, the present invention allows the catalytic reduction of *both NO_x and N_2O*. This "SCR catalyst which in a single operation would permit lowering at the same time of all of the nitrogen oxides *and, the protoxides such as the acid oxides*, [represents] a highly appreciated technical advancement" (page 2, lines 19-22). Speronello et al. does not teach or disclose the claimed gas comprising NO_x and N_2O and, therefore, does not teach all the claimed elements and limitations of the present invention.

Coq et al. does not solve the deficiency of the disclosure and teaching of Speronello et al. in failing to teach all the elements and limitations of the present invention. Like Speronello et al., Coq et al. discloses and teaches a catalyst and catalytic reduction process solely for NO_x, and not for a

combination of NO_x *and* N_2O as in the present invention. In fact, Coq et al. discloses and teaches that their invention is simply the catalyst itself and that the process is otherwise "very simply adapted from the process of the prior art by purely and simply replacing the conventional catalyst with the catalyst of the invention" (col. 5, lines 30-34).

For at least the foregoing reasons, the teachings and disclosure of Speronello et al. and Coq et al.--either by themselves or in combination--fail to teach all the elements and limitations of claim 1--upon which claims 2 and 7-9 are dependent. Accordingly, the present invention distinguishes over Speronello et al. and Coq et al.

CONCLUSION

Applicant respectfully submits that the application is in condition for allowance and respectfully requests a notice of allowance for the pending claims. Should the Examiner determine that any further action is necessary to place this application in condition for allowance the Examiner is kindly requested and encouraged to telephone Applicant's undersigned representative at the number listed below.

A check for a TWO MONTH extension is attached to this Response. In the event any other fees are due, the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

Date: January 26, 2004

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